

Title (en)
Film-type power resistor.

Title (de)
Leistungsschichtwiderstand.

Title (fr)
Résistance à puissance en couche.

Publication
EP 0532224 A1 19930317 (EN)

Application
EP 92307991 A 19920903

Priority
US 75859991 A 19910912

Abstract (en)
A film-type power resistor (10), comprises a flat nonmetal chip (13) having a high dielectric strength, and having relatively high thermal conductivity for a nonmetal, a resistive film (18) applied to the upper surface of the chip (13), terminals (21, 22) connected mechanically to the upper surface of the chip (13) and connected electrically to the resistive film (18), and a molded electrically insulating body (11) embedding those portions of the terminals (21, 22) that are relatively adjacent the chip (13), and also embedding the upper portion of the chip (13). The lower chip surface (14) and the body (11) being so related to each other that the lower surface (14) is exposed and may be engaged in flatwise relationship to a flat region of a chassis. The chip (13) serves as a substrate for the film (18), as a heatsink for heat generated by the film (18), as an insulator maintaining the film (18) electrically insulated from the chassis, and as a spacer maintaining the terminals (21, 22) spaced from the chassis. <IMAGE>

IPC 1-7
H01C 1/034; **H01C 1/084**

IPC 8 full level
H01C 1/034 (2006.01); **H01C 1/084** (2006.01); **H01C 1/14** (2006.01); **H01C 7/00** (2006.01); **H01C 17/06** (2006.01)

CPC (source: EP US)
H01C 1/034 (2013.01 - EP US); **H01C 1/084** (2013.01 - EP US)

Citation (search report)
• [Y] GB 2050705 A 19810107 - ANGSTROHM PRECISION INC
• [A] EP 0334473 A2 19890927 - CADDOK RICHARD E
• [A] DE 8809809 U1 19880915
• [A] US 4064477 A 19771220 - THOMPSON EDWARD E
• [A] EP 0028994 A2 19810520 - RHONE POULENC SPEC CHIM [FR]
• [Y] PATENT ABSTRACTS OF JAPAN vol. 12, no. 493 (E-697)22 December 1988 & JP-A-63 205 935 (TOSHIBA) 25 August 1988
• [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 347 (E-457)21 November 1986 & JP-A-61 150 354 (TOSHIBA) 9 July 1986

Cited by
US7511397B2

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